

What is claimed is:

1. A substrate with a transparent conductive film,  
comprising a transparent substrate, and a transparent  
5 conductive film formed on a surface of said transparent  
substrate, wherein said transparent conductive film has a  
work function of 4.9 to 5.5 eV, a surface roughness of 1  
to 10 nm, and a specific resistance of  $1.6 \times 10^{-4} \Omega \cdot \text{cm}$   
or less.

10 2. A substrate with a transparent conductive film,  
according to claim 1, wherein said transparent conductive  
film is formed on the surface of said transparent  
substrate by an ion plating method by using indium tin  
oxide which is a mixture of tin oxide and indium oxide as  
15 a material to be vaporized, and wherein said indium tin  
oxide has a tin oxide content of 4 to 6 wt%.

3. An organic electroluminescence device  
comprising:  
20 a substrate with a transparent conductive film, including  
a transparent substrate, and a transparent conductive  
film formed on a surface of said transparent substrate,  
wherein said transparent conductive film has a work  
function of 4.9 to 5.5 eV, a surface roughness of 1 to 10  
nm, and a specific resistance of  $1.6 \times 10^{-4} \Omega \cdot \text{cm}$  or  
25 less; and

a multilayer film including a hole transport layer  
formed of an organic material, said multilayer film being  
laminated on a surface of said transparent conductive  
film of said substrate with said transparent conductive  
30 film.

4. An organic electroluminescence device according to  
claim 3, wherein an energy barrier between said  
transparent conductive film and said hole transport layer  
is equal to or smaller than 0.7 eV.

35 5. An organic electroluminescence device according to

